

element "per" is used in selected

The ustic (L. *ustus*, burnt; implying intermediate between the aridic regime. Its concept is one of moisture that is at a time when conditions are suitable for concept of the ustic moisture regime is not applicable permafrost (defined above).

soil temperature is 22°C or higher or if the winter soil temperatures differ by less than 6°C below the soil surface, the soil moisture control section is dry in some or more cumulative days in normal years. It is moist, either for more than 180 cumulative days or more consecutive days.

soil temperature is lower than 22°C and if winter soil temperatures differ by 6°C or more from the soil surface, the soil moisture control section is dry in some or more cumulative days in normal years, but it is moist for more than half of the cumulative days at a depth of 50 cm is higher than 5°C. The moisture control section is moist in all parts for more than half of the cumulative days in the 4 months following the summer solstice. The moisture control section is dry in all parts for more than half of the cumulative days in the 4 months following the summer solstice.

tropical regions that have a monsoon climate with two dry seasons, summer and winter seasons. In those regions the moisture regime is aridic. In humid or semiarid climates, the rainy season is in summer or spring and fall, but never in winter. The soil is mostly annuals or plants that have a dormant period in winter.

The xeric (Gr. *xeros*, dry) moisture regime is in areas of Mediterranean climate where the winters are moist and cool and summers are warm and dry. The xeric moisture regime is particularly effective in arid and semiarid climates, where the soil is dry in all parts for 45 or more consecutive days in the 4 months following the summer solstice.

and moist in all parts for 45 or more consecutive days in the 4 months following the winter solstice. Also, in normal years, the moisture control section is moist in some part for more than half of the cumulative days per year when the soil temperature at a depth of 50 cm from the soil surface is higher than 5°C or for 90 or more consecutive days when the soil temperature at a depth of 50 cm is higher than 8°C. The mean annual soil temperature is lower than 22°C, and the mean summer and mean winter soil temperatures differ by 6°C or more either at a depth of 50 cm from the soil surface or at a densic, lithic, or paralithic contact if shallower.

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Soil Temperature Regimes

Classes of Soil Temperature Regimes

Following is a description of the soil temperature regimes used in defining classes at various categoric levels in this taxonomy.

Cryic (Gr. *kryos*, coldness; meaning very cold soils).—Soils in this temperature regime have a mean annual temperature lower than 8°C but do not have permafrost.

1. In mineral soils the mean summer soil temperature (June, July, and August in the Northern Hemisphere and December, January, and February in the Southern Hemisphere) either at a depth of 50 cm from the soil surface or at a densic, lithic, or paralithic contact, whichever is shallower, is as follows:
 - a. If the soil is not saturated with water during some part of the summer and
 - (1) If there is no O horizon: lower than 15°C; or
 - (2) If there is an O horizon: lower than 8°C; or
 - b. If the soil is saturated with water during some part of the summer and
 - (1) If there is no O horizon: lower than 13°C; or
 - (2) If there is an O horizon or a histic epipedon: lower than 6°C.

2. In organic soils the mean annual soil temperature is lower than 6°C.

Cryic soils that have an aquic moisture regime commonly are churned by frost.

Isofrigid soils could also have a cryic temperature regime. A few with organic materials in the upper part are exceptions.

The concepts of the soil temperature regimes described below are used in defining classes of soils in the low categories.

Frigid.—A soil with a frigid temperature regime is warmer in summer than a soil with a cryic regime, but its mean annual tem-